



Stability calculation according to ISO 6185-3 and ISO 12217-3-2017

By Xiamen DAWN DESIGN

Company: 厦门道恩建筑设计有限公司

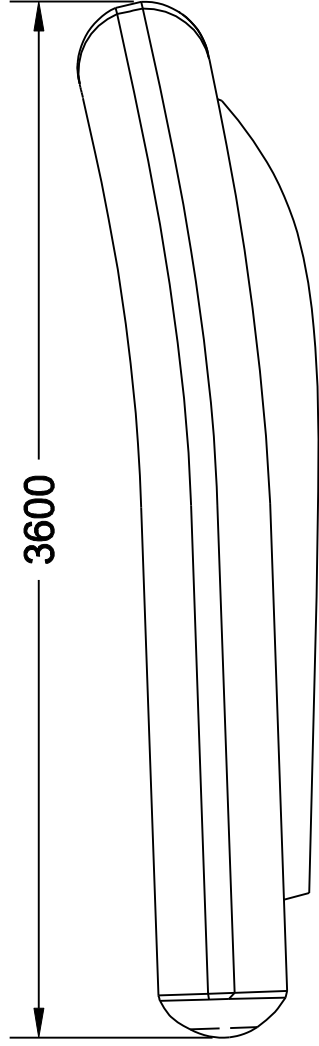
Address: 中国(福建)自由贸易试验区厦门片区翔云一路95号运通中心604B单元之五八八  
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China(Fujian) Pilot Free Trade Zone

Owner: 王弘涛

 DAWN YACHT DESIGN 厦门道恩建筑设计有限公司	ITEM		PROJECT:	CL 360
	CL 360		Cat.	cat. C
Signature		Stability calculations	PAPER	SCALE
Design by 			A4	
Checked by			sheet	1 of 16
Technic by				
Approved by	DATE	2018.07		

# CONTENT

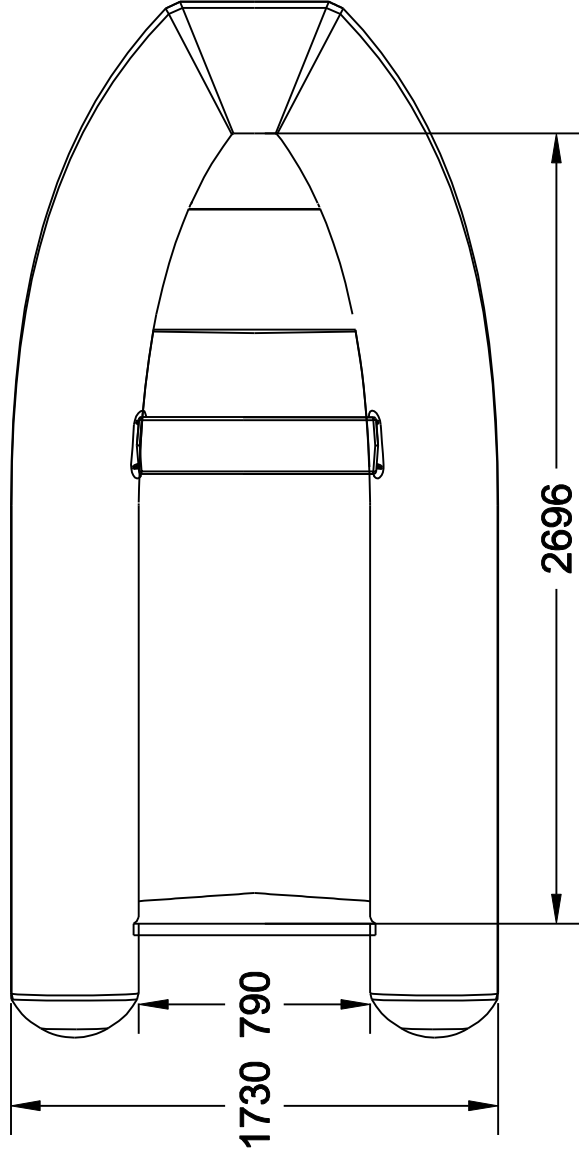
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3600

**SPECIFICATION**

Loa 3600mm  
 Beam 1730mm  
 Inside Length 2696mm  
 Inside Width 790mm  
 Weight 74Kg  
 Max Pax 6  
 Max Load (incl. motor) 614Kg  
 Max HP 30  
 Shaft Short  
 Tube 44cm  
 Airtight Chambers 3



1730 790

2696

**DND**

DAWN YACHT DESIGN

Signature	
S.C/L	
Checked by	
Technic by	
Approved by	
DATE	2018.07.12

**Drawing Title**

**General Arrangement**

Project Name: CL360

Drawing NO.:cl36-01-01

PAPER	SCALE
A4	1:25
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## CL 360 Weight estimation CAT.C

Loa(m) = 3.6m

Lh(m) = 3.6m

Bmax (m) = 1.73m

HULL		Weight	XG (m)	YG(m)	ZG(m)	Mx	My	Mz	NOTE
Hull Plates		50.0	1.50	0.00	0.20	75.00	0.00	10.00	
Structures		15.0	1.28	0.00	0.20	19.20	0.00	3.00	
Inflatable tube		9.0	2.32	0.00	0.70	20.88	0.00	6.30	
<b>TOT.</b>	<b>74.0</b>		<b>1.56</b>	<b>0.00</b>	<b>0.26</b>	<b>115.08</b>	<b>0.00</b>	<b>19.30</b>	

Fixed MACHINERY									
battery		20.5	0.60	0.00	0.20	12.30	0.00	4.10	
Fuel tank		5.0	0.50	0.00	0.20	2.50	0.00	1.00	
Cables		2.0	1.00	0.00	0.22	2.00	0.00	0.44	
<b>TOT.</b>	<b>27.5</b>		<b>0.61</b>	<b>0.00</b>	<b>0.20</b>	<b>16.80</b>	<b>0.00</b>	<b>5.54</b>	

<b>Tot. Empty Craft</b>		<b>101.5</b>	<b>1.30</b>	<b>0.00</b>	<b>0.24</b>	<b>131.88</b>	<b>0.00</b>	<b>24.84</b>	
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Standard Equipment									
Outboard		124.1	-0.20	0.00	0.50	-24.82	0.00	62.05	30 hp
Dry bag		2.0	2.06	0.00	0.40	4.12	0.00	0.80	
Foot pump		1.0	2.00	0.00	0.40	2.00	0.00	0.40	
Paddles		1.0	1.25	0.00	0.62	1.25	0.00	0.62	
Repair kit		1.0	2.00	0.00	0.45	2.00	0.00	0.45	
<b>TOT.</b>	<b>129.1</b>		<b>-0.12</b>	<b>0.00</b>	<b>0.50</b>	<b>-15.45</b>	<b>0.00</b>	<b>64.32</b>	

Additional eq.									
LIFEJACKETS		4.0	3.00	0.00	0.50	12.00	0.00	2.00	
Others not in standard equipment		5.0	1.30	0.00	0.35	6.50	0.00	1.75	
<b>TOT. Addition</b>	<b>9.0</b>		<b>2.06</b>	<b>0.00</b>	<b>0.42</b>	<b>18.50</b>	<b>0.00</b>	<b>3.75</b>	

Light Craft									
	EmptyCraft	101.5	1.30	0.00	0.24	131.88	0.00	24.84	
	standard eq.	129.1	-0.12	0.00	0.50	-15.45	0.00	64.32	
<b>Light Craft</b>	<b>Tot.</b>	<b>230.6</b>	<b>0.50</b>	<b>0.00</b>	<b>0.39</b>	<b>116.43</b>	<b>0.00</b>	<b>89.16</b>	

Minimum Operating condition									
	Light craft	230.6	0.50	0.00	0.39	116.43	0.00	89.16	
	additonal eq	9.0	2.06	0.00	0.42	18.50	0.00	3.75	
1	passengers+crews	75.0	0.50	0.00	0.70	37.50	0.00	52.50	
<b>Minimum Operating condition</b>	<b>Tot.</b>	<b>314.6</b>	<b>0.548</b>	<b>0.00</b>	<b>0.462</b>	<b>172.43</b>	<b>0.00</b>	<b>145.41</b>	

addit.  
0.05  
0.51

FULL LOAD									
	light craft	230.6	0.50	0.00	0.39	116.43	0.00	89.16	
24	FUEL	17.1	0.50	0.00	0.20	8.55	0.00	3.42	
4	drinking water	3.8	2.10	0.00	0.50	7.98	0.00	1.90	
	personal prov.	10.0	2.20	0.00	0.45	22.00	0.00	4.50	
	additonal eq	9.0	2.06	0.00	0.42	18.50	0.00	3.75	
6	passengers+crews	450.0	1.47	0.00	0.85	661.50	0.00	382.50	
<b>FULL LOAD</b>	<b>Tot.</b>	<b>720.5</b>	<b>1.16</b>	<b>0.00</b>	<b>0.67</b>	<b>834.96</b>	<b>0.00</b>	<b>485.23</b>	

addit.  
0.05  
0.72

<b>Loaded Arrival</b>									
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	<b>light craft</b>	<b>230.6</b>	<b>0.50</b>	<b>0.00</b>	<b>0.39</b>	<b>116.43</b>	<b>0.00</b>	<b>89.16</b>	
<b>24</b>	FUEL	1.8	0.50	0.00	0.10	0.90	0.00	0.18	
<b>4</b>	drinking water	0.4	2.10	0.00	0.50	0.84	0.00	0.20	
	personal prov.	10.0	2.20	0.00	0.45	22.00	0.00	4.50	
	additonal eq	9.0	2.06	0.00	0.42	18.50	0.00	3.75	
<b>6</b>	passengers+crews	450.0	1.47	0.00	0.70	661.50	0.00	315.00	
<b>Loaded Arrival</b>	<b>Tot.</b>	<b>701.8</b>	<b>1.17</b>	<b>0.00</b>	<b>0.59</b>	<b>820.17</b>	<b>0.00</b>	<b>412.79</b>	
				<b>addit.</b>	0.05				
					0.64				

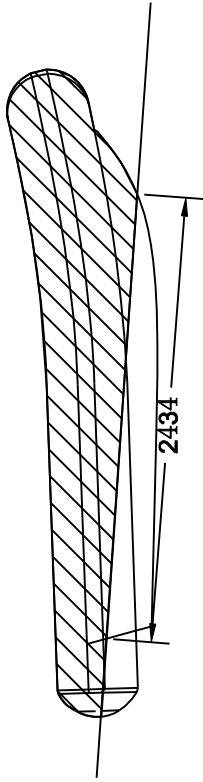
<b>Crews</b>	<b>crew no.</b>								
	1.0	85.0	0.50	-0.41	0.70	42.50	-34.85	59.50	
	2.0	85.0	0.85	-0.42	0.70	72.25	-35.70	59.50	
	3.0	85.0	1.45	-0.41	0.70	123.25	-34.85	59.50	
	4.0	85.0	1.85	-0.39	0.70	157.25	-33.15	59.50	
	5.0	85.0	1.30	0.03	0.70	110.50	2.64	59.50	
	6.0	85.0	1.53	0.03	0.70	130.05	2.21	59.50	
<b>Tot. Crews</b>		<b>510.0</b>	<b>1.25</b>	<b>-0.26</b>	<b>0.70</b>	<b>635.80</b>	<b>-133.71</b>	<b>357.00</b>	

<b>Crew offset test condition</b>									
	<b>light craft</b>	<b>230.6</b>	<b>0.50</b>	<b>0.00</b>	<b>0.39</b>	<b>116.43</b>	<b>0.00</b>	<b>89.16</b>	
<b>24</b>	FUEL	17.1	0.50	0.00	0.20	8.55	0.00	3.42	
<b>4</b>	drinking water	3.8	2.10	0.00	0.50	7.98	0.00	1.90	
	personal prov.	10.0	2.20	0.00	0.45	22.00	0.00	4.50	
	additonal eq	9.0	2.06	0.00	0.42	18.50	0.00	3.75	
<b>6</b>	passengers+crews	510.0	1.25	-0.26	0.70	635.80	-133.71	357.00	
<b>Crew offset test condition</b>	<b>Tot.</b>	<b>780.5</b>	<b>1.04</b>	<b>-0.17</b>	<b>0.59</b>	<b>809.26</b>	<b>-133.71</b>	<b>459.73</b>	
				additona	0.05				
	<b>Tot.</b>	<b>780.5</b>	<b>1.04</b>	<b>-0.17</b>	<b>0.64</b>	<b>809.26</b>	<b>-133.71</b>	<b>459.73</b>	

**Weihai Haifei Marine Ltd. CL 360**

Design Category intended:	C	Monohull / multihull:	Monohull	Propul. type	OB
Item	Symbol	Unit	Value	Ref.	
Length of hull as in ISO 8666	$L_{HLH}$	m	3.60	4. Table 1	
Length of waterline in loaded arrival condition	$L_{wLwL}$	m		4. Table 1	
<u>Empty Craft condition mass</u>	$m_{ECmEC}$	kg	101.5	3.3.1	
standard equipment		kg	129.1	3.4.10	
water ballast in tanks which are notified in the owner's manual to be filled when the boat is afloat		kg	0.0	3.3.2	
Light craft condition mass	$m_{LCmLC}$	kg	230.6	3.3.2	
<b>Mass of:</b>					
Desired crew limit	CL	----	6	3.4.2	
Mass of:					
desired crew limit at 75 kg each		kg	450.0		
provisions + personal effects		kg	10.0	3.3.3	
drinking water		kg	3.8	3.3.3	
fuel		kg	17.1	3.3.3	
lubricating and hydraulic oils		kg	0.0	3.3.3	
black water		kg	0.0	3.3.3	
grey water		kg	0.0	3.3.3	
water ballast		kg	0.0	3.3.3	
any other fluids carried aboard (e.g. bait tanks)		kg	0.0	3.3.3	
stores, spare gear and cargo (if any)		kg	0.0	3.3.3	
optional equipment and fittings not included in basic outfit		kg	9.0	3.3.3	
inflatable life raft(s)		kg	0.0	3.3.3	
other small boats carried aboard		kg	0.0	3.3.3	
margin for future additions		kg	0.0	3.3.3	
Maximum load = sum of above masses	$m_L$	kg	489.9	3.3.3	
<u>Maximum Load condition mass</u>	$m_{LDC}$	kg	720.5	3.3.4	
mass to be removed for loaded arrival condition		kg	18.7	3.3.5	
<u>Loaded Arrival condition mass</u>	$m_{LA}$	kg	701.8	3.3.5	

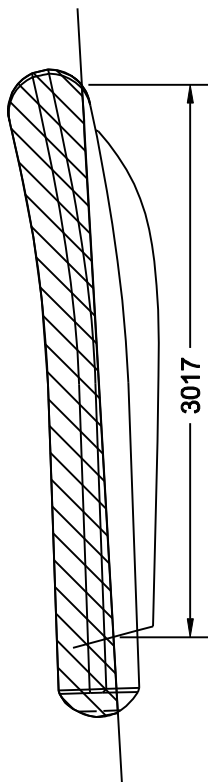
# mMo



1. Calculation AT mMo

Item	Symbol	Unit	Value
Windage area	$A_{LV}$	m <sup>2</sup>	1.34
Waterline length of hull	$L_{WL}$	m	2.43
Beam of hull	$B_H$	m	1.73
Ratio of $A_{LV}/(0.5L_{WL} * B_H)$		-	$\approx 0.64 < 1$

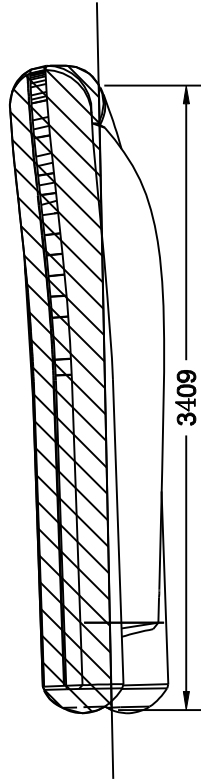
# mLA



2. Calculation AT mLA

Item	Symbol	Unit	Value
Windage area	$A_{LV}$	m <sup>2</sup>	1.30
Waterline length of hull	$L_{WL}$	m	3.02
Beam of hull	$B_H$	m	1.73
Ratio of $A_{LV}/(0.5L_{WL} * B_H)$		-	$\approx 0.50 < 1$

# Offset test



3. Calculation AT offset test condition

Item	Symbol	Unit	Value
Windage area	$A_{LV}$	m <sup>2</sup>	1.43
Waterline length of hull	$L_{WL}$	m	3.41
Beam of hull	$B_H$	m	1.73
Ratio of $A_{LV}/(0.5L_{WL} * B_H)$		-	$\approx 0.48 < 1$

It is not necessary to perform wind resistance test

**DND**  
DAWN YACHT DESIGN

Signature	
Design by	S.C/L
Checked by	
Technic by	
Approved by	
DATE	2018.07.12

Drawing Title

Windage Area

Project Name: CL360

Drawing NO: CL36-01-03

PAPER	SCALE
A4	1:40
SHEET	1 of 1

**CL 360 Hydrostatic tables**

Draft m	Displ. kg	LCB m	TCB m	VCB m	Wet Area m <sup>2</sup>	Awp m <sup>2</sup>	LCF m	TCF m	VCF m	BMT m	BMI m	Cb	Cwp	Cws	Cvp
0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.100	40.816	1.001	0.00	0.071	1.027	0.931	0.968	0.00	0.100	0.382	8.894	0.319	0.746	3.356	0.427
0.110	50.972	0.994	0.00	0.078	1.168	1.057	0.953	0.00	0.110	0.515	8.539	0.128	0.299	3.183	0.427
0.120	62.756	0.980	0.00	0.085	1.375	1.247	0.887	0.00	0.120	1.003	9.304	0.134	0.328	3.350	0.409
0.130	76.672	0.957	0.00	0.092	1.619	1.470	0.829	0.00	0.130	1.489	9.479	0.144	0.369	3.545	0.391
0.140	93.015	0.931	0.00	0.100	1.891	1.718	0.790	0.00	0.140	1.900	9.148	0.157	0.416	3.737	0.377
0.150	112.009	0.905	0.00	0.107	2.187	1.985	0.770	0.00	0.150	2.221	8.580	0.171	0.466	3.918	0.367
0.160	133.726	0.883	0.00	0.115	2.505	2.268	0.766	0.00	0.160	2.463	7.994	0.186	0.518	4.086	0.359
0.170	158.384	0.866	0.00	0.123	2.809	2.535	0.781	0.00	0.170	2.583	7.420	0.203	0.566	4.190	0.358
0.180	185.610	0.855	0.00	0.131	3.082	2.768	0.802	0.00	0.180	2.589	6.911	0.220	0.605	4.229	0.363
0.190	215.105	0.849	0.00	0.138	3.333	2.977	0.824	0.00	0.190	2.536	6.477	0.237	0.638	4.230	0.371
0.200	246.633	0.847	0.00	0.145	3.565	3.165	0.846	0.00	0.200	2.453	6.111	0.253	0.667	4.208	0.380
0.210	279.980	0.849	0.00	0.152	3.778	3.332	0.869	0.00	0.210	2.356	5.802	0.270	0.691	4.170	0.390
0.220	314.945	0.852	0.00	0.159	3.974	3.481	0.890	0.00	0.220	2.251	5.536	0.285	0.712	4.121	0.401
0.230	351.348	0.857	0.00	0.166	4.154	3.613	0.910	0.00	0.230	2.146	5.302	0.301	0.729	4.066	0.412
0.240	389.037	0.863	0.00	0.173	4.323	3.733	0.929	0.00	0.240	2.044	5.095	0.315	0.745	4.009	0.423
0.250	427.895	0.870	0.00	0.179	4.483	3.842	0.947	0.00	0.250	1.946	4.907	0.329	0.758	3.953	0.434
0.260	467.824	0.877	0.00	0.186	4.637	3.942	0.964	0.00	0.260	1.854	4.738	0.343	0.771	3.900	0.445
0.270	508.744	0.885	0.00	0.192	4.786	4.035	0.981	0.00	0.270	1.767	4.584	0.356	0.782	3.850	0.455
0.280	550.585	0.893	0.00	0.199	4.931	4.122	0.997	0.00	0.280	1.686	4.443	0.369	0.793	3.803	0.465
0.290	593.288	0.901	0.00	0.205	5.072	4.203	1.013	0.00	0.290	1.609	4.315	0.381	0.804	3.761	0.474
0.300	636.797	0.909	0.00	0.211	5.212	4.279	1.029	0.00	0.300	1.535	4.195	0.394	0.814	3.722	0.484
0.310	681.054	0.918	0.00	0.217	5.350	4.349	1.045	0.00	0.310	1.465	4.085	0.406	0.824	3.686	0.492
0.320	726.010	0.926	0.00	0.223	5.487	4.415	1.062	0.00	0.320	1.399	3.984	0.418	0.834	3.655	0.501
0.330	771.619	0.935	0.00	0.229	5.623	4.476	1.078	0.00	0.330	1.335	3.892	0.429	0.842	3.626	0.509
0.340	817.611	0.943	0.00	0.235	5.759	4.433	1.120	0.00	0.340	1.269	3.648	0.441	0.833	3.606	0.529
0.350	862.198	0.954	0.00	0.241	5.899	4.259	1.188	0.00	0.350	1.201	3.325	0.447	0.794	3.581	0.564



# CL360 Offset load test -cat. C

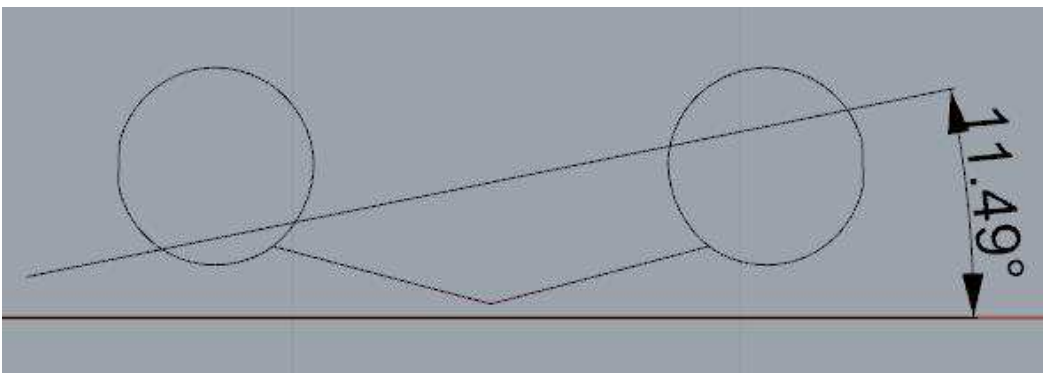
## 1.General

Length Overall, LOA	3.600	m
$L_H =$	3.600	m
Beam Overall, Boa	1.730	m
Depth Overall, D	0.816	m
Waterline Length, Lwl	3.415	m
Waterline Beam, Bwl	1.663	m
Navigational Draft, T	0.365	m
Displacement Weight	780.500	kgf
Volume	0.761	m <sup>3</sup>
LCG	1.040	m
TCG	0.170	m
VCG	0.640	m
Fluid Density	1025.000	kg/m <sup>3</sup>
LCB	1.048	m
TCB	0.248	m
VCB	0.256	m
Wetted Surface Area	5.853	m <sup>2</sup>
Waterplane Area, Awp	3.895	m <sup>2</sup>
LCF	1.168	m
TCF	0.065	m
Weight To Immerse	39.964	kgf/cm
Cb	0.427	
Cvp	0.593	
Cwp	0.720	
Cws	3.631	
I(transverse)	0.778	m <sup>4</sup>
I(longitudinal)	2.749	m <sup>4</sup>
BMt	1.023	m
BMI	3.613	m
GMt	0.631	m
GMI	3.221	m
Mt	0.906	m
MI	3.496	m

## 2.Heel angle requirement

During the test , the heel angle  $\Phi_o$  shall be not greater than

$$11.5 + \frac{(24 - L_H)^3}{520} \quad 27.83^\circ$$



As shown from the graph , the real heel angle  $\Phi_o =$

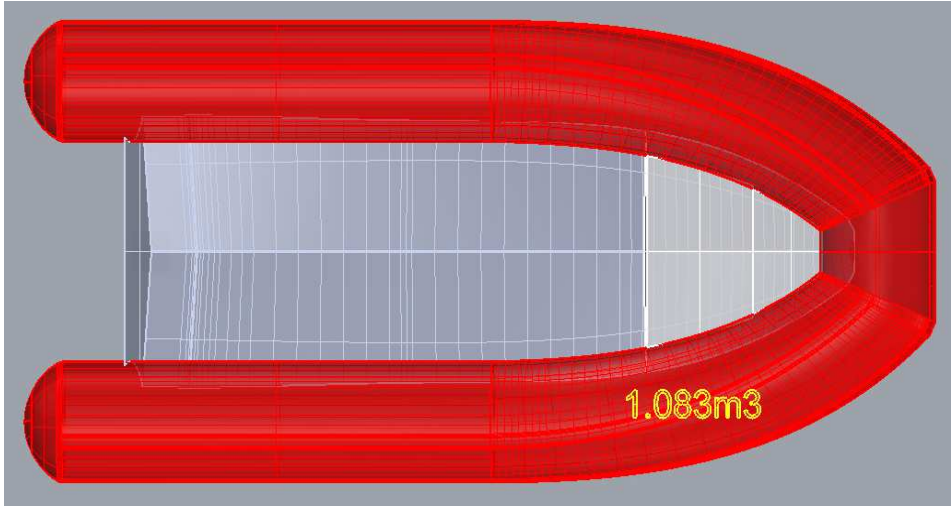
$$11.49^\circ < 27.83^\circ$$

**Result:**

**PASS**

# CL 360 Buoyancy

Inflatable Buoyancy tube: 1.083 m<sup>3</sup> (3.5)  
 Permanent sealed buoyancy: 0 m<sup>3</sup> (3.8)



Inherent buoyancy of the rigid parts of the boat:

0.027 m<sup>3</sup>  
 0.041 m<sup>3</sup>  
 0.069 m<sup>3</sup>

Alluminium mass: 74 Kg  
 outboard engine mass 124.1 Kg

**Table 4 — Material densities**

Material	Density kg/m <sup>3</sup>
Aluminium alloys	2 700

$v = \frac{m}{\rho}$   
 $v$  is the volume of an element, expressed in m<sup>3</sup>;  
 $m$  is the mass of that element, expressed in kg;  
 $\rho$  is the density of that element, expressed in kg/m<sup>3</sup>, as given in [Table 4](#).

**TOTAL BUOYANCY:** 1.152 m<sup>3</sup>

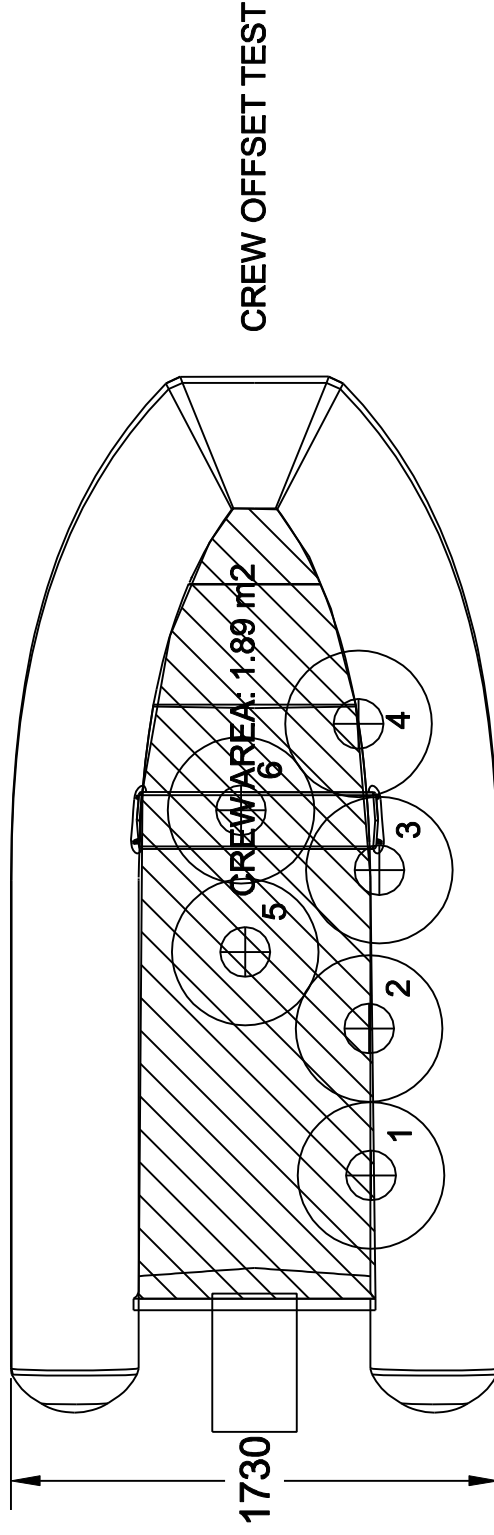
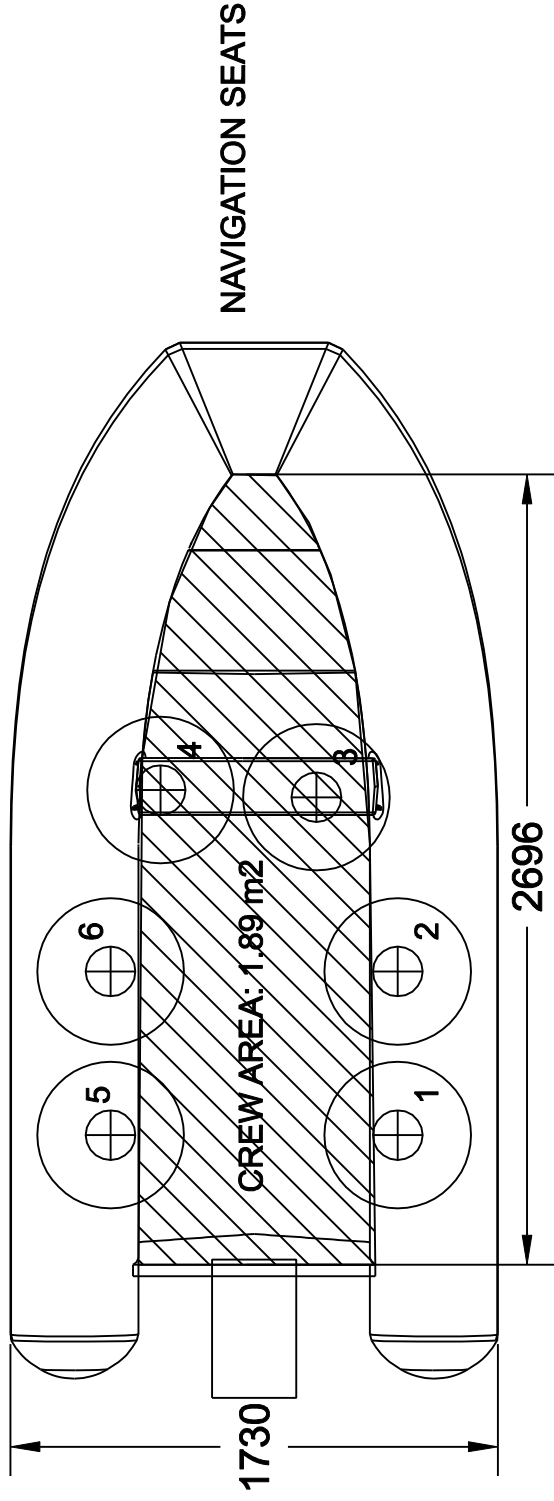
The total buoyant volume in m<sup>3</sup> ( $V$ ) shall be as follows:

$$V > \frac{k \times m_{LDC}}{1000}$$

Where  $k$  is:

- 1,33 for boats assessed to design category B;
- 1,2 for boats assessed to design category C;

cat C      mLDC= 720.5 Kg      1,2xmLDC/1000= 0.865      <      1.152  
 OK



<b>DND</b> DAWN YACHT DESIGN	Signature			
	Design by	S.C/L	PAPER	SCALE
	Checked by		A4	1:25
	Technic by		SHEET	1 of 1
	Approved by			
	DATE	2018.07.12		

<b>Project Name:</b> CL360	<b>Drawing Title</b>
	<b>Crew Area</b>
<b>SPECIFICATION</b>	
<b>Crew Area</b>	1.89m <sup>2</sup>
<b>Max Pax</b>	6

# CL360 Righting Arm (Minimum operating)-cat. C

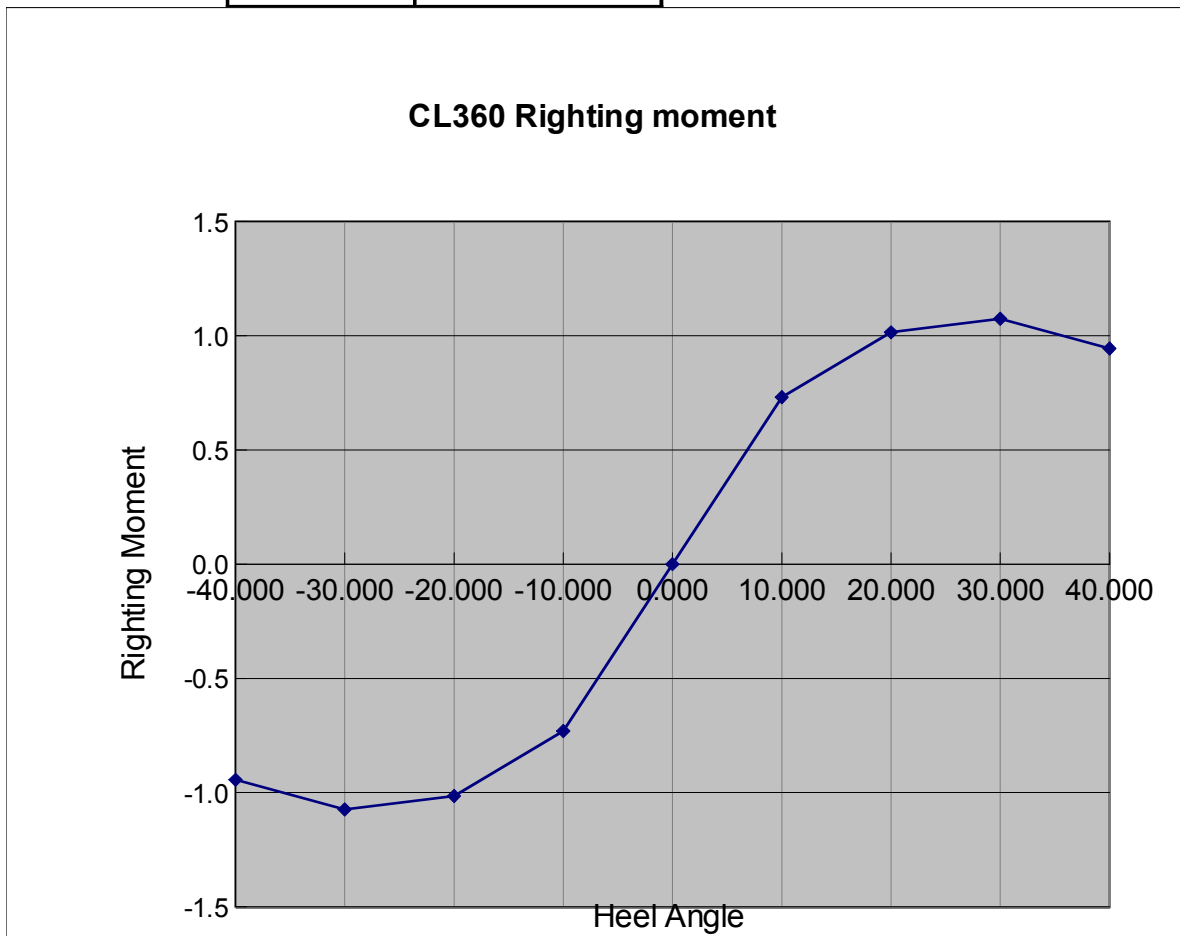
## 1. General

$L_{oA}$  = 3.6 m  
 $L_H$  = 3.6 m  
 Displacement = 314.6 Kg  
 Design Category C  
 Condition Minimum Operating

## 2. Righting arm

The righting moment curve and Heeling moment curve plot on the same graph , as below:

Heel(deg)	Trim(deg)	Righting Arm (m)	Righting Moment (N*m)
-40.000	-8.66	-0.31	-0.9
-30.000	-5.61	-0.35	-1.1
-20.000	-4.96	-0.33	-1.0
-10.000	-4.69	-0.24	-0.7
0.000	-4.00	0.00	0.0
10.000	-4.69	0.24	0.7
20.000	-4.97	0.33	1.0
30.000	-5.61	0.35	1.1
40.000	-8.66	0.31	0.9



# CL360 Righting Arm (Loaded Arrival)-cat. C

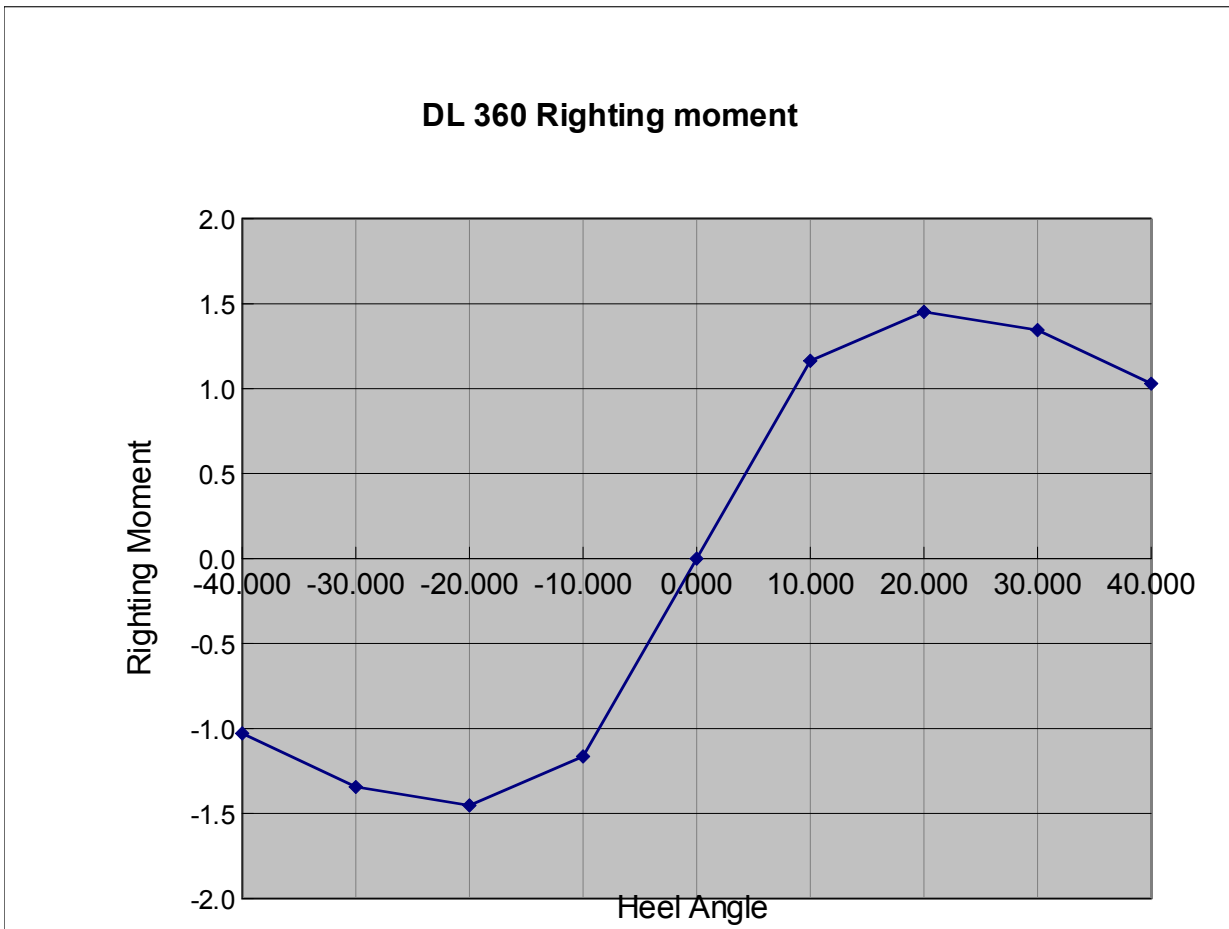
## 1. General

$L_{oA}$  = 3.6 m  
 $L_H$  = 3.6 m  
 Displacement = 701.8 Kg  
 Design Category C  
 Condition Loaded Arrival

## 2. Righting arm

The righting moment curve and Heeling moment curve plot on the same graph , as below:

Heel(deg)	Trim(deg)	Righting Arm (m)	Righting Moment (N*m)	
-40.000	4.39	-0.15	-1.0	
-30.000	4.16	-0.20	-1.3	
-20.000	3.78	-0.21	-1.5	
-10.000	3.36	-0.17	-1.2	
0.000	3.29	0.00	0.0	
10.000	3.36	0.17	1.2	
20.000	3.78	0.21	1.5	
30.000	4.16	0.20	1.3	
40.000	4.39	0.15	1.0	



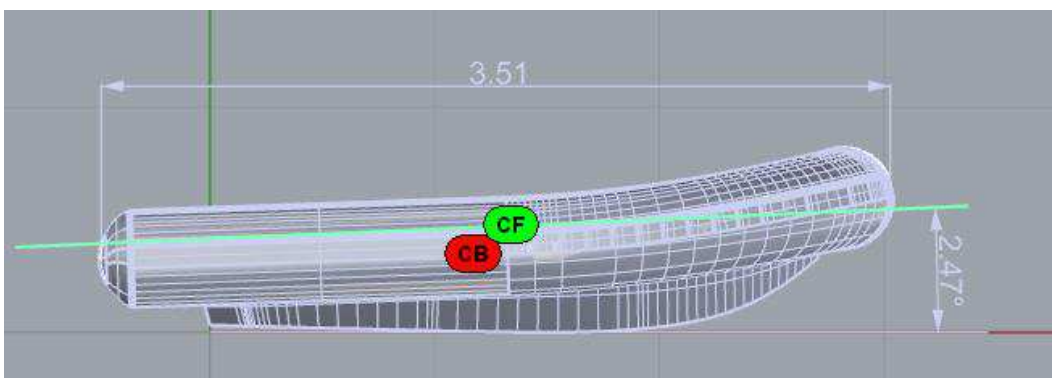
# CL360 Swamped stability

## 1.General

Length Overall, LOA	3.600	m
$L_H =$	3.600	m
Beam Overall, Boa	1.730	m
Depth Overall, D	0.820	m
Waterline Length, Lwl	3.522	m
Waterline Beam, Bwl	1.644	m
Navigational Draft, T	0.308	m
Displacement Weight	720.500	kgf
Volume	0.702	m <sup>3</sup>
LCG	1.160	m
TCG	0.000	m
VCG	0.720	m
Fluid Density	1025.000	kg/m <sup>3</sup>
LCB	1.176	m
TCB	0.000	m
VCB	0.344	m
Wetted Surface Area	5.835	m <sup>2</sup>
Waterplane Area, Awp	2.977	m <sup>2</sup>
LCF	1.340	m
TCF	0.000	m
Weight To Immerse	30.545	kgf/cm
Cb	0.394	
Cvp	0.765	
Cwp	0.514	
Cws	3.710	
I(transverse)	0.940	m <sup>4</sup>
I(longitudinal)	3.046	m <sup>4</sup>
BMt	1.338	m
BMI	4.337	m
GMt	0.962	m
GMI	3.966	m
Mt	1.216	m
MI	4.214	m
Design Category	C	

## 2.Trim angle requirement

When the boat in the fully loaded condition is filled to overflowing with water , it shall float with not more than 10° from the unswamped fully loaded waterline

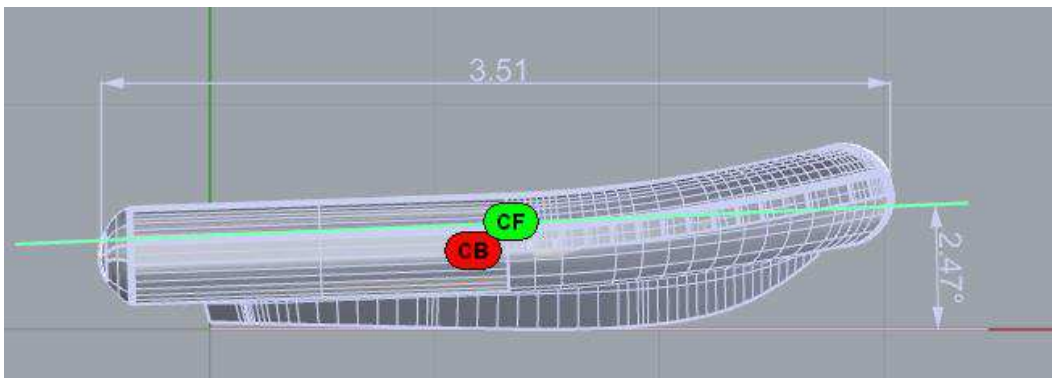


As shown from above , the trim angle  $\Phi = 2.47^\circ < 10^\circ$

Result: PASS

### 3. $L_H$ requirement

When the boat in the fully loaded condition is filled to overflowing with water, it shall be more than  $2/3$  of  $L_H$  above the water



As shown from above,  $L_H' =$

$$L_H' / L_H =$$

3.510 m

$$0.975 > 2/3 L_H =$$

0.667

Result:

PASS

## CL 360 Maximum power for initial testing

The maximum power for initial testing of outboard powered craft is determined based on the following:

- factor  $\lambda$ , calculated as follows:

$$\lambda = L_H \times B_T$$

where

$L_H$  is the length of hull, in metres, as defined in ISO 8666;

$B_T$  is the transom width, in metres, at or below the sheer, as defined in ISO 8666;

For craft with a factor  $\lambda$  greater than 5,1, the value of the maximum power for initial testing, expressed in kilowatts, is taken as the following (see Figure C.3):

- without remote wheel steering, deadrise angle  $\alpha < 5$ :  $4,2\lambda - 11$ ;
- without remote wheel steering, deadrise angle  $\alpha \geq 5$ :  $6,4\lambda - 19$ ;
- with remote wheel steering:  $16\lambda - 67$ .

cl360

Lh                    3.6 m  
Bt                    1.73 m  
 $\lambda$                     6.228  $\lambda > 5$

Deadrise >5 deg.

Without steering wheel

20.8592

With steering wheel

32.648 KW            43.74832 HP

$$7\sqrt{L_H} \quad 13.28157 \text{ Kn}$$

$$V_{\max} > \quad 7\sqrt{L_H}$$

The test has to be performed with the maximum power.